

What Is Claimed Is:

1        1. A method for etching a mask layer, comprising steps of:  
2           forming a mask layer on a semiconductor substrate;  
3           forming a photoresist with patterns on the surface of the  
4        mask layer;  
5           forming a victim layer on the surface of the photoresist  
6        according to the photoresist topography, wherein the thickness  
7        of the victim layer is smaller than that of the photoresist, such  
8        that a plurality of slopes are formed on the sidewalls of the  
9        photoresist; and  
10          etching the mask layer using the photoresist and the victim  
11        layer with the slopes to be the etching mask.

1        2 . The method for etching a mask layer as claimed in claim  
2        1, wherein the mask layer is a nitride.

1        3 . The method for etching mask layer as claimed in claim  
2        1, wherein the thickness of the victim layer is 800~1000Å.

1        4 . A method for etching a protecting layer for metal contact  
2        windows, comprising steps of:  
3           providing a semiconductor with semiconductor elements or  
4        inner leads on the surface;  
5           forming a protecting layer over the inner leads.  
6           forming a photoresist with patterns on the protecting  
7        layer;

8 forming a victim layer on the surface of the photoresist  
9 according to the photoresist topography, wherein the thickness  
10 of the victim layer is smaller than that of the photoresist with  
11 patterns, such that a plurality of slopes are formed on the  
12 sidewalls of the photoresist; and

13 etching the protecting layer to form a plurality of metal  
14 contacting windows using the photoresist and the victim layer  
15 with the slopes to be the etching mask.

1 5. The method for etching a protecting layer for metal  
2 contact windows as claimed in claim 4, wherein the protecting  
3 layer is nitride.

1 6. The method for etching a protecting layer for metal  
2 contact windows as claimed in claim 4, wherein the victim layer  
3 is an anti-reflection coating layer.

1 7. The method for etching a protecting layer for metal  
2 contact windows as claimed in claim 4, wherein the thickness of  
3 the victim layer is 800~1000Å.

1 8. The method for etching a protecting layer for metal  
2 contact windows as claimed in claim 4, wherein the plurality of  
3 metal contacting windows are pad regions and fuse regions